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ALTERNATIVES FOR EDUCATIONAL FINANCE
WITHIN THE ESTABLISHED PARAMETERS

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COMMISSION ON DECLINING SCHOOL ENROLMENTS IN ONTARIO (CODE)

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ALTERNATIVES FOR EDUCATIONAL FINANCE WITHIN THE ESTABLISHED PARAMETERS

Introduction

The British North America Act left the making of laws respecting education in Canada to the provinces rather than to the central government. This did not mean, as is sometimes claimed, that education became the responsibility of provincial central authorities, but rather, that it was up to the people of each province to decide through their legislature how education was to be administered and financed. Among the alternatives that a province had and still has in this regard are the following:

1. The province can administer and finance the education system centrally as is done in the states of Australia;
2. The province can delegate both the administration and finance of education to (a) local educational authorities (school boards), or (b) parents, churches, and private enterprise.
3. The province can delegate the administration of schools to local authorities, parent groups, and churches but provide for central finance.
4. The province can delegate the responsibility for financing schools to local authorities, parent groups and churches while retaining major administrative control of the schools and teachers.
5. The province can delegate certain aspects of administration and finance to local bodies and retain for itself certain other aspects of the administration and finance of the schools.

As has already been mentioned, complete centralization of administration and finance was the decision made early in the states of Australia and in New Zealand. It also exists in the American state of Hawaii and in those national jurisdictions that are characterized by unitary systems of government with strong central controls.

Alternative 2(a) was the one early adopted in North America both in the United States and in the British provinces (including Upper Canada) prior to

Confederation. Usually some monies were made available from the state or province but these were almost entirely incentive grants designed to stimulate the building of schools and the attendance of pupils in an era when school attendance was not compulsory.

Alternative 2(b) was the one used in politics where there was no state intervention in education. It characterized Upper Canada in the few years from its foundation in 1793 to the passing of the Public School Act in 1808, and in England prior to 1833.

Alternative 3 is the one adopted in 1967 by New Brunswick, where the actual administration of education was delegated to 33 school boards but the entire financial responsibility was borne by the central authority. The Netherlands has gone still further by delegating the administration of schools not only to cities, towns and other communes but also to parent groups, churches, and ideological societies while still retaining the financing function for all schools at the state level.

I know of no jurisdiction where alternative 4 in its pure form has been adopted, though the situation in Upper Canada under Egerton Ryerson was rather close. There was very strong central control over what went on in schools and how they were run whereas central financing was limited to the afore-mentioned incentive grants. It was not until near the end of Ryerson's career that laws were passed making it mandatory for municipalities to levy property taxes at the request of school trustees to pay for school costs not covered by the legislative grant.

Alternative 5 probably comes closest to the way education has been administered and financed in Ontario in recent years. The administration of schools and what goes on in them has been delegated to local boards more completely than in any previous period in this province. Prescribed text-books have been replaced by lists of approved text-books; centrally prescribed, detailed courses of instruction have been replaced by curricula developed locally within broad, centrally

determined guidelines; provincial inspection of schools has been replaced by supervision provided by local boards; provincial examinations have been eliminated; teachers are hired, their numbers and their duties determined (within the limitations of The Education Act) by the boards. On the other hand boards today have considerably less authority than they once did over the decision to build a school, how large it is to be, and what it is to cost.

The financing of the major part of the school program is, however, chiefly a function of the province. That is to say the province has been constituted as a single unit for the equitable financing of school spending up to the so-called ceiling levels of ordinary expenditure (\$1,299 per weighted elementary pupil and \$1,841 per weighted secondary pupil in 1978) and up to whatever expenditure levels are approved for individual boards by the Ministry for expenditures on transportation and debt-service charges. Local financial responsibility is limited to expenditures unrecognized by the Ministry for grant purposes.

The province of Ontario has reached this situation by a gradual process over a period of over 100 years. It is not within the scope of this report to give a detailed history of the financing of education in Ontario. Let it be said simply that over a long period of years Ontario has moved steadily away from a position where the control of the interna of education, (those things that actually go on in schools as part of the education process) was highly centralized at Queen's Park and where the provision of the externa of education (those things, including finance, that "make it possible to bring the right child to the right school under the right teacher at a cost the state can afford") was left chiefly to local authorities. We have thus seen a steadily increasing involvement of the province with school finance, school buildings, and pupil transportation.

Ideally, if the twin goals of local decision-making and fiscal equity are to be met, provincial financial arrangements should be such that any two boards, regardless of local tax-paying ability, would be able to provide similar levels

of education (in terms of dollars per pupil) with the same local effort (as measured by mill rate on taxable assessment at market value or some uniform fraction thereof). This ideal would not ensure so-called "equality of educational opportunity" but it would remove any fiscal barrier to its achievement. Any differences in expenditure per pupil from one jurisdiction to another would then be attributable solely to local decision-making uninfluenced by disparities in tax-paying ability. It must be remembered that differences as great as \$100 per pupil in expenditure per pupil do not necessarily indicate a significant difference in educational services offered: such a difference can occur through, for instance, having 22 pupils per teacher instead of 25, a difference in pupil/teacher ratio that has defied repeated attempts to show a relationship with differences in the quality of education provided. Differences of from one to five pupils per teacher may result from overt board policy or as a side effect of such things as inner-city schools, small schools, very large schools and the kinds of special programs and services offered. Differences of between \$100 and \$200 per pupil can also be caused solely by differences in the average level of qualifications of teachers. Here again there is no research evidence that educational achievement is significantly different for pupils taught by university graduates than for those taught by teachers without a university degree. Conventional wisdom, however, leads us to expect a better product from more highly educated teachers than from those less well educated even if we have not been successful in measuring the difference.

There are several major barriers to achieving the complete fiscal equality described above. These will now be examined in the Ontario context.

The Barrier of Imprecise Measures of Local Ability to Pay

Perhaps the chief barrier to achievement of the ideal of complete fiscal equality for school boards has been the lack of directly comparable measures of local tax-paying ability. Until 1970 the placing of a value on real property for the payment of taxation was left in the hands of the municipalities. While

the province has provided guidelines and manuals to locally-employed assessors, there has always been a very wide discrepancy from municipality to municipality in the "assessment ratio"--the percentage of full market value at which a property was assessed. The variations among municipalities have been as great as from a low of 10% of full market value to a high of 125% of such value. Not only has such variance in assessment ratios existed among municipalities but even within municipalities there have been great variations in the assessment ratios used for different classes of property: residential, multiple-unit residential, commerical, industrial and farm. Moreover these variations were different from municipality to municipality.

Variation in assessment ratios between municipalities was no problem for most municipal purposes. If municipality A had an assessment ratio of 10% while its neighbour, municipality B, had a ratio of 50%, all that would happen would be that municipality A's mill rate would be five times that of municipality B's, for the same level of service but the tax on a property worth \$20,000 in A would be identical to that on a property in B worth the same amount. It was only when county rates were being calculated that the differences in assessment ratios mattered municipally. Then it was necessary for the county council to appoint an assessment equalization committee charged with the task of determining how the county requisition was to be apportioned among the constituent municipalities. The result was known as "county equalized assessment."

But the chief need for some kind of comparability among municipal assessed valuations arose because of the province's entry into the field of equalization grants to school boards. Here, even the county equalized assessments were of limited value since one county might equalize at 50% of market value and another at 100%. Besides, there was nothing similar to county equalized assessment in the cities and separated towns of southern Ontario nor in any of the territorial districts of northern Ontario. Until 1958 equalization grants to school boards in urban municipalities were based on population on the assumption

that the larger the municipality the greater the true assessed valuation per student. For rural school boards, county equalized assessment was used in the south and the raw, locally-determined assessments in the townships of the north. As equalization grants grew, it was a great temptation for rural municipalities to lower their assessment ratios, thus appearing poorer and receiving higher education grants.

The then Department of Municipal Affairs solved this problem temporarily in 1957 by sending out provincial assessors to the over 900 municipalities to spot-check local assessments. The end result of this rather complicated process was a series of factors purporting to show at what percentage each local municipality was assessing its property in relation to the provincial standard (based on building costs in 1940). By dividing the local assessment of a municipality by its factor, that municipality's "provincial equalized assessment" was obtained. This was used for all boards in the Department of Education's school grant plan beginning in 1958. For the first time, some province-wide standard way of measuring relative property-tax-raising ability had been achieved.

In 1966 a different method of determining provincial assessment equalization factors was devised, based on recorded sales of properties. At the same time, the provincial standard was updated from 1940 cost to 1965 cost. Finally, when the province took over all property assessment in 1970 and announced it would henceforth base assessments on full market value the long drawn-out process of property tax reform in Ontario was begun. The effective date of implementation of the new tax base was repeatedly deferred and finally postponed indefinitely in June of 1978. During the past 8 years the local assessments used for 1970 taxation have been used for purposes of distributing the province's school grants. (In some municipalities and regions the new provincial assessments have been used).

The inherent equity in the Ontario school grants plan is predicated on the existence of a standard measure of tax-paying ability. With the shelving of tax reform it will be incumbent on the province to devise more up-to-date assessment

equalizing factors than those in existence in 1970 if the equity in the grant plan is not to be compromised.

The Barrier of Extremes in Unit Equalized Assessment Caused by the Large Number of School Administrative Units.

In 1945 there were 5,506 units of administration for elementary schools in Ontario and 433 for secondary schools. The problems caused for school finance by such a large number of school authorities are:

- (1) There will be a large number of very poor, small authorities with nothing but farm or residential assessment supporting the school program.
- (2) There will be a substantial number of small, but very rich school authorities, because of such anomalies as having a large industrial plant or a large number of summer cottages supporting a very small school enrolment.

The first problem is not as serious as the second from the standpoint of achieving complete equity in school finance. It is more of a psychological problem (for other jurisdictions and for the central authorities) than a fiscal one. It involves the concept of "five-cent dollars" since many such small, poor boards, in order to be placed on an equal footing with other boards in the province, will need to receive 95% or higher of their recognized expenditure from the central authority. This raises the bugaboo of irresponsible spending by such boards; no concrete evidence of such irresponsibility has been brought to light. Obviously, it is as much of an effort to provide the "five-cent dollars" locally as it is for a wealthy board to provide "95-cent dollars." Thus, from the standpoint of providing complete fiscal equality, assessment-poor boards present no real problem. They do, however, present a serious problem if there is to be a provincially-set limit on the amount of a board's expenditure that is recognized for purposes of provincial assistance (a condition that has existed every year since 1945 in Ontario). Such a limitation may be referred to variously as a foundation-program level, as a ceiling on recognized expenditure in terms of

dollars per unit of educational need (classroom unit, or raw or weighted pupil or teacher), or as board-by-board recognized expenditure on debt service and transportation. Where such limitations exist the assessment-poor board is at a great disadvantage relative to other boards. Its lack of assessment constrains it to spend very little above the amounts recognized by the province for grant purposes - otherwise the local mill rate becomes prohibitive.

The second problem is much more serious. Many small, rich boards will be so rich that any equitable system of school finance should require not only that they receive no grant but that part of their local tax revenue be channeled, through the province, to other school jurisdictions (the negative-grant concept). The imposition of such a negative-grant system of school finance usually proves to be politically unpalatable; hence the existence of any large number of extremely wealthy boards (in terms of unit equalized assessment) either militates against the implementation of a fully equalized system of grants, or results in the making of exceptions for wealthy boards so that they are able to provide the same level of expenditure as other boards at a lower mill rate (or a higher level at the same mill rate). In the years since 1945 this barrier to equitable school finance has been drastically reduced as shown by Table 1.

TABLE 1

Number of School Administrative Units in Ontario by Decades, 1945 - 1975

<u>Year</u>	<u>Elementary</u>	<u>Secondary</u>
1945	5,506	433
1955	3,937	306
1965	1,467	257
1975	177	78

The move to larger units of administration reduced 5,506 elementary-school jurisdictions to 177 over the 30-year period from 1945 to 1975. During the same

period secondary school jurisdictions were reduced from 433 to 78. This kind of consolidation of school authorities tends to greatly narrow the range of unit equalized assessment as former assessment-poor and assessment-rich districts are brought together under the same jurisdiction. The results can be best seen with respect to the secondary school jurisdictions of Ontario. The range of equalized assessment per weighted pupil in 1977 was from \$201,068 for Metro Toronto to \$38,038 for Hornepayne, - the wealthiest having 5.29 times as much assessment per weighted pupil as the poorest. It is unusual for the largest school jurisdiction to be also the richest but that is the situation among secondary boards in Ontario. The formation of large units of administration has eliminated any small, assessment-rich boards. This process would have been carried even further and have eliminated many of the still existing assessment-poor boards had it not been for sparsely populated northern Ontario. Hornepayne and other small northern boards such as Chapleau, Hearst and Geraldton are so far from neighboring communities that it is impossible with present technology to enlarge them. If secondary districts in the territorial districts that do not contain a city are excluded, the poorest secondary board, with an equalized assessment per weighted pupil of \$54,383, becomes the Prescott and Russell County Board of Education. This reduces the distance between the richest and poorest to a factor of only 3.7. Table 2 shows the key points in the distribution of the 71¹ secondary boards according to assessment per weighted pupil - the high and low boards, the 10th and 90th percentiles, the 1st and 3rd quartiles and the medians.

¹Reduced from the 78 shown in Table I by combining the data for the six area boards of Metro Toronto into one and by disregarding the two Department of National Defence secondary districts.

TABLE 2

Assessment Per Weighted Pupil¹ of Ontario Secondary School Boards at Certain Points

In the Distribution, in 1977, With Some Additional Data

Scale Point	Ass/WP			
Poorest (Po)	\$ 38,038	Ratio of wealthiest to poorest	5.3:1	
P10	54,739			
Q1 (P25)	69,450	Average Ass/WP for all secondary students	= \$136,700	
Median (P50)	98,691			
Q3 (P75)	126,002		Exp/Pup	Required Mill Rate
P90	153,045	Wealthiest (Metro Toronto)	\$2586	8.37
Wealthiest (P100)	201,068	Poorest (Hornepayne)	2949	4.86
		Range = \$163,030 or 165% of the Median		

It will be noted that because the wealthiest board also has the most students the distribution is skewed. A board of average wealth lies somewhere between the 75th and 90th percentiles. Fifty percent of the secondary boards have A/WP's between \$69,450 and \$126,002 - a ratio of only 1.8 to one. Table 3 provides similar data for the 121 elementary school boards.

TABLE 3

Assessment Per Weighted Pupil¹ of Ontario Elementary School Boards at Certain Points

In the Distribution, in 1977, With Some Additional Data

Scale Point	Ass/WP			
Poorest	\$ 5,008	Ratio of wealthiest board to poorest	28:1	
P10	15,440	Average Ass/WP for all elementary		
Q1	25,905	pupils = \$64,200		
Median	39,820		Exp/Pup	Required Mill Rate
Q3	63,526	Wealthiest (Kapuskasing Pub)	\$1575	8.03
P90	77,441	Poorest (Atikokan Sep.)	1754	10.06
Richest	140,180	Range = \$135,172 or 339% of the Median		

¹Calculated from rate of grant on ROE

We note from Table 3 that the distribution of elementary boards is also skewed though not quite as severely as that for secondary boards. The provincial average A/WP was only 1.06% higher than the A/WP of a board at the 75th percentile, whereas the corresponding percentage for the secondary distribution was 8.49%. It is in the range between the poorest and wealthiest boards that the greatest difference between elementary and secondary boards is to be found. For secondary boards the range was only 165% of the median while for elementary boards it was 339% - slightly more than twice as great relatively. Another way of expressing this difference is to note that while the richest secondary board was only 5.3 times as rich as the poorest, the richest elementary board was 28 times as rich as the poorest. The reason for the great divergence between elementary school and secondary school A/WP distributions is the automatic continued existence of a pool of assessment-poor elementary boards - the Roman Catholic separate school boards. These boards, legally denied their proportionate share of the assessment of public corporations, almost constitute a separate group of school jurisdictions; that is, there is very little overlap between the public and separate elementary boards in terms of A/WP. Tables 4 and 5 show this clearly.

TABLE 4

Assessment Per Weighted Pupil of Ontario Public, Elementary School Boards at Certain Points in the Distribution, in 1977, With Some Additional Data

<u>Scale Point</u>	<u>Ass/WP</u>		<u>Exp/Pup</u>	<u>Required Mill Rate</u>
Poorest	\$ 16,243	Ratio of wealthiest board to poorest	8.6:1	
P10	35,214	Average A/WP for all elementary pupils:	\$64,200	
Q1	46,722			
Median	63,398			
Q3	71,150	Wealthiest (Kapuskasing)	\$1575	8.03
P90	91,886	Poorest (Hornepayne)	1745	5.08
Wealthiest	140,180			
		Range = \$123,937 or 195% of the Median.		

TABLE 5

Assessment Per Weighted Pupil of Ontario Separate Elementary School Boards At

Certain Points in the Distribution, in 1977, With Some Additional Data

Scale Point	Ass/WP		Exp/Pup	Required Mill Rate
Poorest	\$ 5,008	Ratio of wealthiest board to poorest : 10.4:1		
P10	10,705	Average A/WP for all elementary pupil	\$64,200	
Q1	15,713			
Median	24,075	Wealthiest (Hald.-Norfolk)	\$1424	7.44
Q3	29,355	Poorest (Atikokan)	1754	10.06
P90	35,310			
Wealthiest	52,146			

Range = \$47,138 or 196% of the Median

One notes that the ranges for both types of elementary boards are practically the same - 195.6% of the median but that while 90% of the public boards have \$35,214 A/WP or more, 90% of the separate boards have \$35,310 A/WP or less. It is also to be noted that the distribution of public elementary boards (Table 4) is the only one that does not show serious skewing in terms of the relationship between the median and a board of average wealth; the former being \$63,398 and the latter \$64,200. Of the public boards, fifty percent lie between \$46,722 and \$71,150 A/WP - a ratio of only 1.52:1 while of the separate boards, fifty percent lie between \$15,713 and \$29,355 - a ratio of 1.87:1

The existence of publicly-supported separate schools, then, has made it impossible in the elementary jurisdictions to achieve the kind of equalization through consolidation that one might expect.

The problems are chiefly of the first kind (small, assessment-poor boards) rather than of the second kind (small, assessment-rich boards), though some of the latter do result, e.g., the Kapuskasing public school jurisdiction, which is the wealthiest in the province. If there were no separate school board in Kapuskasing, the elementary board there would not be particularly assessment-rich (nor would it be so small); its A/WP in 1977 would have been \$52,062, well below

that of a board of average wealth (\$64,200).

In summing up the situation with respect to this barrier, then, we must conclude that it cannot be completely removed because of the existence of (1) isolated small communities in northern Ontario and (2) a group of assessment-poor Roman Catholic separate school jurisdictions in the elementary-school field.

Despite the continued existence of small assessment-rich and assessment-poor school jurisdictions, however, the existing general legislative grants have achieved a remarkable amount of success in overcoming the problems associated with the existence of such jurisdictions. If we look at the data relating to the wealthiest and poorest boards in each of the Tables 2 - 5, we will note that in every case the poorest board spent, in 1977, more per pupil than did the wealthiest board. Table 6 summarizes the data from these four tables and analyzes the relationship between expenditures per pupil and mill rate.

TABLE 6

Differences in Expenditure Per Pupil and Mill Rate Between the Richest and Poorest

Boards in Four Categories, 1977

<u>Category of Board</u>	<u>Excess Exp/Pup of Poor Board over Rich Board</u>		<u>Excess (Deficiency) of Required Mill Rate of Poor Board over Rich Board</u>	
	\$	%	Mills	%
Secondary	363	14.0	(3.51)	(41.9)
Elementary				
Total	179	11.4	2.03	25.3
Public	170	10.8	(2.95)	(36.7)
Separate	330	23.2	2.62	35.2

It will be seen from Table 6 that the poorest elementary board spent 11.4% more per pupil than the richest elementary board and that its mill rate on equalized assessment (had it raised no more or less than it needed) was 25.3% higher than that of the richest board. The poorest separate school board spent

23.2% more per pupil and had a necessary mill rate 35.2% higher than did the richest separate school board. On the other hand, the poorest secondary board spent 14% more than the richest but had a mill rate 41.9% lower; while the poorest public elementary board spent 11.4% more than the richest but had a mill rate 36.7% lower! This evidence would indicate that even with the great disparities in A/WP still existing, the Ontario school financing system has been able to cope with such disparities.

The Barrier of Assessment-Poor Separate Elementary School Boards

The barrier to equity caused by the existence of separate school boards is a function of their relatively low A/WP, not of their existence as such. The low assessment per weighted pupil is caused by two main factors:

1. The property taxes of public corporations and public utilities in the elementary panel go entirely to the public school boards, and
2. Separate school boards have a larger number of elementary school pupils per housing unit to educate than have the public school boards.

The latter fact is made clear by some data taken from the tax reform studies. Table 7 shows the assessment per pupil on market value residential assessment only of ten public and separate school boards whose jurisdictions were more or less coterminous in 1977.

TABLE 7

Comparison of Assessment per Pupil of Market Value Residential Assessment of Ten Public and Separate School Coterminous Jurisdictions, 1977

Board	Type	Residential Ass/Pup.	Pub. as % of Sep.	Board	Type	Residential Ass/Pup.	Pub. of
Metro Toronto	Public	56,426	161	York Reg.	Public	69,411	16
	Separate	34,995			Separate	43,281	
Windsor	Public	37,591	169	Kapuskasing	Public	24,115	24
	Separate	22,196			Separate	9,738	
Durham R.	Public	59,535	211	Nipissing	Public	28,156	20
	Separate	28,276			Separate	13,827	
Essex Co.	Public	38,070	155	Sudbury	Public	26,421	11
	Separate	24,577			Separate	15,334	
Waterloo Co.	Public	49,988	191	Hearst	Public	21,968	21
	Separate	26,160			Separate	10,005	

Provincial average, market-value, residential assessment per pupil: \$41,714

If we assume that the average market value of the residences of public school supporters is not significantly different from that of separate school supporters, we would expect all differences in residential assessment per pupil between the two boards operating in the same city or county to be caused only by differences in the average number of pupils of elementary school age per residential unit. If this assumption is true,¹ Table 7 indicates that the separate school boards shown had from 55% (Essex Co.) to 148% (Kapuskasing) more elementary school pupils per housing unit than did the corresponding public school boards.

The problems caused by the existence of separate school boards are essentially the problems caused by the existence of small, assessment rich and assessment-poor boards as discussed in the previous section.

One often-proposed partial solution to the problem caused by these boards is to divide corporation assessment between the public school and separate school boards in proportion to:

- (a) their residential and farm assessment, or
- (b) their student enrolment.

This would have the effect of making each public school board relatively poorer and each separate school board relatively richer in terms of assessment per pupil. Thus the range of assessment per pupil would be considerably narrowed. In particular, small, assessment-rich boards would no longer exist and most separate school boards would move closer to the median for all elementary boards.

The advantage of using this method (alternative (b) would obviously do the better job) would be that the province could achieve complete fiscal equity without the necessity of using negative grants to any great extent. In addition, to the extent that all boards' per-pupil assessments would be closer together, there would be less inequity involved among boards spending above ceilings or approval

¹Another assumption, of course, is that, on average, the market value of housing units supporting separate boards is lower than that of those supporting public boards.

levels if complete fiscal equity were not achievable. The disadvantage of this method would be the opposition of public boards which would be losing assessment to the separate boards. This solution might, in other words, be seen to be a "hot potato" politically, even though it is very logical and fair and is in force in the other provinces that have separate school systems, Quebec, Saskatchewan and Alberta.¹

A second possible solution would be for the province to tax corporation assessment at a uniform rate for elementary education and remove it from the tax rolls available to both public and separate school boards. The proceeds of the uniform tax could then be added to the monies available for the general legislative grants with the result that a higher percentage of elementary boards' recognized ordinary expenditure would be met from grant or the grant ceiling (recognized ordinary expenditure per weighted pupil) could be raised, or both. (This would be necessary, since all elementary boards that had previously had access to any corporation assessment would become poorer.)

The chief advantage of this solution would be that it would put all boards on the same footing with respect to corporation assessment - none of them would have any, and all of them would receive their share of the former total yield of elementary school taxation on such assessment on a per-pupil or per-weighted-pupil basis. This method would make the public boards poorer without making the separate boards richer. It would not be as effective as the first method in bringing a separate school board's assessment per pupil closer to that of the public school board in the same jurisdiction. On the other hand it would be more effective than the first solution in bringing all elementary boards closer together in terms of assessment per pupil. The first method would pool corporate assessment within a county or other region under the jurisdiction of

¹ Newfoundland also has a Roman Catholic school system but its current operations are financed provincially without recourse to property taxation.

a separate school board, while the second solution would pool it provincially. A possible problem with this solution would be the danger of the additional local money from the provincial tax on public corporations coming to be considered after a few years as provincial money. This could be avoided by having the procedure defined in The Education Act rather than by regulations. The mill rate to be levied each year on such corporation assessment would, of course, be promulgated by regulation.

This solution might be politically more attractive since a majority of the public school boards as well as all separate school boards would stand to gain from it. The big losers would be the approximately 10% of boards that now have access to approximately 80% of the assessment of public corporations. To the extent that this method of attacking the problem would group elementary boards much more closely around the median, it would facilitate the implementation of complete fiscal equity among boards with a minimum of negative grants to an even greater extent than the first method discussed above.

The third method of overcoming the barrier to equity presented by the assessment-poor separate school boards would be to pool all real property assessment provincially. This could be done in two radically different ways:

- (1) The New Brunswick method, by which a uniform education mill rate on real property would be levied and collected by the province.¹ The proceeds, together with the monies normally allotted to the general legislative grants would be used by the province to provide the full cost of education of the school boards. This method, of necessity, requires the province to decide how much is to be spent per pupil (and in some cases for what purposes) by each board. Presumably it would be strong on equality and equity and extremely weak on local autonomy. Indeed, as Cameron suggests²

¹The tax could be levied by the province but collected by the municipalities and forwarded to the province as is done in Alberta and Manitoba.

²See David M. Cameron, 'Declining Enrolment and the Financing of Education in Ontario' A paper prepared for CODE.

the easiest way to implement this method might be to abolish school boards entirely.

(2) Discontinue the existence of expenditure levels above which there is no provincial grant contribution. This would result in the complete fiscal equity referred to earlier as an ideal. It would mean that every board's mill rate would always be the same for a given level of expenditure per weighted pupil. The advantages of such a system are obvious; for any level of expenditure, local tax-paying ability would not have to be taken into consideration, except that a higher level of expenditure would result in a higher mill rate, but all boards, rich and poor, would be in the same position. But the main advantage, from the standpoint of democratic practices in education over 150 years old, would be the continued existence of strong local decision-making as to how much to spend on education and on what. Indeed local autonomy would be greatly strengthened since it would be applicable to all boards instead of to only those with unit assessments above the provincial average as is effectively true now.

The great disadvantage of this method would be the open-endedness of the provincial contribution. Some means would have to be devised to discourage excessive spending by any board. This could be done by decreasing drastically the effective rate of provincial aid as boards exercised their options to exceed a series of per-pupil-expenditure levels. Any board could spend, for example, 50% more per weighted pupil than the first expenditure level but would have to incur a mill rate considerably higher than 150% of the mill rate required to finance the first level. This sounds like a simple means of achieving absolute fiscal equity while strengthening local control but it is not so simple as it may at first appear. It entails substantial use of negative grants to the point where an assessment-rich board might have to pay over to the province as much as 125%

of the yield of an additional mill rate required to provide an increase in expenditure per pupil. Very high expenditures per pupil for such a board could result in an overall negative grant.

Appendix A presents a series of tables showing the effects of these three methods of solving the problem of assessment-poor separate school boards as well as the way the 1977 system operated for the same boards.

The data in the four tables are summarized in Table 8.

For those who want to understand the implications of the alternative plans to provide greater fiscal equity, a detailed examination of Table 8 and the four Appendix A tables that provide the basic calculations is necessary.

Table 9 shows the expenditures per weighted pupil of the seven boards expressed as a percentage (Col. 1) of the 1977 grant ceiling: \$1197, and the mill rates from Table 8 resulting from the application of the 1977 grant system and the three alternative plans as percentages of the mill rate (7.458) required by a board spending \$1197/WP in 1977. In a final column the four plans are rated (from best to worst) for each board.

Obviously, every board spending above the ceiling will have its mill rate increase at a faster rate than its expenditure per pupil since in plans A through C there is no provincial contribution above the \$1197/WP figure while in plan D the provincial contribution is less for expenditure above \$1197 than at or below it and is progressively less, percentage wise, the higher above it a board goes. Table 9 must be examined, then, by looking at the relationship between the percentage of ceiling expenditure in column 1 and the percentages of 1977 ceiling mill rate (7.458 mills) in columns 2 through 5. It is plain that the rich public school board (very high in corporation assessment per weighted pupil) suffers a loss under plans B, C, and D, but oddly enough, least under plan D - the one with an overall negative grant (see Table 8 and Appendix A Table IV). It suffers worst under plan C because it is a high spender and its corporation assessment removed it becomes only 1.56 times as rich as the

Table 8

Summary of Tables I-IV of Appendix A, Comparing Seven Boards Spending at Different Levels of ROI/WP in 1977 and the Three Proposed Methods^a of Providing Greater Fiscal Equalization

	Board Item	Rich PSB	Coterminal SSB	AV. Wealth PSB	Coterminal SSB	Poor PSB	Coterminal SSB	Dummy PSB	Prov. Totals
PLAN	WADE Exp/WP	2142 \$1618	3150 \$1340	2336 \$1220	1452 \$1200	1000 \$1250	1200 \$1240	20,000 \$1197	31,280 \$1245.45
A. Actual 1977 Grant Plan	Ass/WP Grant/WP Mill Rate	\$140,056 \$152.47 10.464	\$28,571 \$985.92 12.463	\$64,212 \$718.11 7.816	\$24,105 \$1017.23 7.582	\$28,000 \$988.18 9.351	\$10,000 \$1122.42 11.758	\$69,659 \$677.50 7.458	\$64,200 \$718.20 8.212
B. Local Pooling of Corp.Ass.	Ass/WP Grant/WP Mill Rate	\$86,368 \$552.89 12.332	\$65,079 \$711.62 9.656	\$57,328 \$769.43 7.860	\$35,181 \$934.62 7.543	\$23,636 \$1020.68 9.702	\$15,636 \$1095.26 10.615	\$69,659 \$677.50 7.458	\$64,200 \$718.20 8.212
C. Prov. Pooling of Corp.Ass.	Ass/WP Corp Tax/WP Grant/WP Mill Rate	\$46,685 \$277.71 \$605.28 15.744	\$25,397 \$277.71 \$748.47 12.357	\$42,808 \$277.71 \$631.36 7.263	\$20,661 \$277.71 \$780.32 6.871	\$20,000 \$277.71 \$784.77 9.376	\$10,000 \$277.71 \$852.03 11.026	\$29,659 \$277.71 \$719.80 6.726	\$29,897 \$277.71 \$718.20 8.346
D. All Ass. Pooled Decelerating Rates of Grant	Ass/WP Grant/WP Mill Rate	\$140,056 (\$78.31) ^b	\$28,571 \$1082.45	\$64,212 \$715.34	\$24,105 \$1015.05	\$28,000 \$1022.09	\$10,000 \$1159.54	\$69,659 \$664.50	\$64,200 \$706.22
		12.112	9.014	7.859	7.673	8.140	8.046	7.644	8.399

a Local pooling of corporation assessment (Table A II), provincial pooling of corporation assessment, (Table A III) and provincial pooling of all assessment (Table A IV)

b Figures in parentheses are negative

TABLE 9

EXPENDITURE PER WEIGHTED PUPIL AND MILL RATES OF THE SEVEN BOARDS
 IN SUMMARY TABLE 8 EXPRESSED AS A PERCENTAGE OF THOSE OF A 1977 BOARD SPENDING
 AT THE CEILING AMOUNT OF \$1197/WP AT A MILL RATE OF 7.458 MILLS

Board	Exp/WP as % of \$1197	Mill Rate as a Percent of 7.458 Mills: That of a Board Spending \$1197/WP in 1977				Plan Preferences			
		Plan A	Plan B	Plan C	Plan D	Best	2	3	Worst
Rich PSB	135.71	140.31	165.35	211.10	162.40	A	D	B	C
Coterminous SSB	111.95	167.11	129.47	165.69	120.86	D	B	C	A
Av. Wealth PSB	101.92	104.80	105.39	97.39	105.38	C	A	D	B
Coterminous SSB	100.25	101.66	101.14	92.13	102.88	C	B	A	D
Poor PSB	104.43	125.38	130.09	125.72	109.14	D	A	C	B
Coterminous SSB	103.59	157.66	142.33	147.84	107.88	D	B	C	A
Dummy PSB	100	100	100	90.19	102.49	C	(AB)	D	

provincial average instead of 2.18 times as it was under plan A. In real life, under plan C, such a board would be forced to curtail its per-pupil expenditure.

But, while the actual plan A was best for the rich public school board, it was worst for the coterminous separate school board. While spending only 11.95% above the ceiling (as opposed to the public board's 35.17%), its mill rate was 67.11% above what it would have been had it spent at the ceiling (while the public board's mill rate was only 40.31% above). It is obvious that plan B helps the separate board - provides greater equity; now its mill rate, and that of the public school board bear a better relationship to their respective expenditure levels. The remaining disparity is caused by the lower non-corporation assessment per weighted pupil of the separate board as opposed to the public board. It will be noted that the complete provincial pooling of all assessment is the most beneficial to this board.

Time does not allow a complete analysis of all of the figures in these tables. The reader may do that for itself. It must be remembered that these tables are only illustrative in that they are based on the assumption of a seven-board province and on a distribution of corporation assessment that is probably not entirely representative. This caveat is particularly true of plans C and D since, in the case of the former, it is likely that expenditure levels would fall as the wealth of public school boards would be drastically reduced, and in the case of the latter, expenditure levels might rise somewhat, since some provincial support would be available.

It is important to point out that plan D could present an infinite variety of results depending on the provincial policy aims desired, while still retaining both local decision-making and complete fiscal equity. The province could reinstate a very effective ceiling on expenditure per weighted pupil by requiring a local contribution of 90 or 95 percent (a grant of only 10% or 5%) for a board of average wealth for all expenditure in excess of, say, \$200 per weighted pupil above the basic ceiling (comparable, in 1977 terms, to all expenditure in excess of

\$1396 per weighted pupil). An additional feature of plan D, as contained in Appendix A Table IV, was an incentive to spend below the basic ceiling (\$1197). This was done by using a grant rate of 62% for expenditure of \$1000/WP or below. This results in a more-than-proportional reduction in mill rate as expenditure/WP falls below \$1197.¹ This feature is not a necessary concomitant of plan D. It was suggested, along with the sharply accelerating rates of local sharing (decelerating rates of grants), as a means of controlling per-pupil expenditure by mill rate pressures while making the pressures the same for all boards regardless of wealth.

Another thing that must be said about plan D is that it could be couched in terms of accelerating required mill rates per additional \$100 of expenditure per weighted pupil instead of accelerating local shares. There is no difference in concept between the 1977 and 1978 Ontario grant plans; they are two different ways of stating that any two boards in the province, regardless of wealth, can provide \$1197 (1977) or \$1299 (1978) of ordinary expenditure per weighted pupil for a mill rate of 7.458 mills (1977) or 7.986 mills (1978).

Plan C, the pooling of corporation assessment at the provincial level could be devised in a different way as well. In the text it has been assumed that corporation assessment would be pooled only for elementary school purposes, and that it would be used to provide a basic tax relief grant within the ceiling allotment of ordinary expenditure. Thus, its chief effect would be to make all boards, but more particularly public boards with high per-pupil corporation assessment, poorer and thus greatly lessen the ability of a public school board

¹ e.g., a board with an expenditure of \$1197/WP would have a mill rate of 7.644 (see Table 8) while one spending \$1100 would have a mill rate of 6.795 - by spending 8.1% below the ceiling its mill rate would be 10.1% less.

to spend above the ceiling with greater ease than the conterminous separate school board. It says nothing as to the effect on the boards' ability to finance unrecognized extraordinary expenditure (transportation expenditure and debt charges).

There could be another function of such funding. All corporation assessment for both panels could be pooled and the funds used to equalize unrecognized expenditures up to some agreed level. In this way, the funds would be used when, and only when, local boards decided (or were forced by circumstance to increase their mill rates above those required) to find their expenditures within the ROE ceiling and within the levels of recognized extraordinary expenditure. Since every knowledgeable person agrees that within recognized expenditure limits there is already complete pooling of all assessment, and that it is the uneven distribution of corporation assessment that is the main contributor to differences in boards' abilities to make unrecognized expenditures, it makes sense to use corporation assessment resources for this purpose. This plan has drawbacks, however. There would be a tendency for all boards to spend to the new limits, so that all that would have been achieved would have been the extension of ceiling on recognized ordinary expenditure. If this were to happen, the plan would be no different from that described earlier as plan C. It does not matter whether the money generated by the provincial pooling of corporation assessment is the first \$300 or the last \$300 per pupil within the ceiling allowance.

The Barrier of Varying Levels of Need for Extraordinary Expenditure

In the days before the formation of county and district boards of education and of separate school boards with the same or larger territorial

jurisdictions, there were many boards that had no expenditure for transporting pupils to and from school (city and town districts) while there were other boards (high school districts with one central school and township school areas and union separate school boards operating only one or more central schools) where close to 100 percent of pupils had to be transported. Similarly, there were jurisdictions in which all pupils were in accommodation that was not paid for and hence had a high per-pupil annual charge for debt service, while, on the other hand, there were jurisdictions where all of the students were in accommodation that had been completely paid for years before. There were, of course, many boards at various points between these two extremes. What is certain, however, is that expenditures for transportation and debt charges, when expressed as dollars per pupil enrolled in a board's schools, varied enormously--from as low as \$10 to as high as \$500 per pupil enrolled. In 1968 such expenditures were classified for the first time as "extraordinary expenditure."

The existence of great variations in extraordinary expenditure per pupil is a definite barrier to the achievement of equity in school finance. Should board A's tax rate be half as high again as board B's for the same level of instructional service just because board A had to transport most of its pupils to a new central school while the pupils of board B all walk to a school paid for a decade before? The problem of such extraordinary expenditure has been attacked in many different ways, but basically there are four ways of approaching the problem short of not recognizing it as a problem at all:

1. Let the province (state) pay the full cost of necessary and approved school building and transportation.
2. Pay grants on extraordinary expenditure at a higher rate than on ordinary expenditure.

3. Pay grants on extraordinary expenditure at a higher rate the higher the per-pupil extraordinary expenditure.
4. Pay the same rate of grant on recognized extraordinary expenditures as on recognized ordinary expenditures.

In some U. S. States, it was long the practice of school districts to finance school building entirely from local resources. This has not been Canadian practice. The State of New York uses method four above to pay state aid to districts for expenditures on school building and transportation. This is the least desirable of the four from the standpoint of equity. It does nothing to recognize the barrier of high variation in such expenditures. All it does is to recognize such costs as of the same order as instructional costs.

Method number one has been adopted by Alberta, Manitoba, Quebec, Nova Scotia, Prince Edward Island, and New Brunswick for both types of extraordinary expenditure, and by British Columbia and Newfoundland for expenditure on transportation. This has been done by including approved extraordinary expenditures in the foundation program. Since the local contribution to the foundation program is not contingent on the cost of the program, the effect of such a plan is 100 percent provincial assumption of such extraordinary expenditures. In other words, in those provinces, all assessment in the province is pooled for the purposes of financing those aspects of extraordinary expenditure included in the foundation program.

Ontario has never gone this far, while going much farther than the simple device of paying the same rate of grant on extraordinary as on ordinary expenditures. The Ontario solution, since 1968, has been to use a combination of methods 2 and 3 above. For example, in 1977 a secondary school board with an assessment per weighted pupil equal to the provincial

average Ass./WP received grant on its recognized ordinary expenditures at the rate of 56%. But on capital expenditure from current revenue and on debt charges in respect of approved debentures for which debt charges became payable for the first time in 1977, and for the first \$184 per weighted pupil of all other recognized extraordinary expenditure (transportation and debt charges other than those falling due for the first time in 1977), it received grant at the rate of 75%. For other extraordinary expenditure in excess of \$184 per weighted pupil it received grant at the rate of 95%. Thus, a board that had more than \$184/WP of this "second-level" recognized extraordinary expenditure (REE) would have a rate of grant on REE that increased as the REE/WP increased. When the very high rate of grant (95%) on second-level REE was introduced some years ago it was to ensure that boards faced with building schools in new subdivisions would have 90 to 99 percent of the debt charges thereon paid in grant; it was hoped that this measure would head off municipal demands for lot levies to help finance, among other things, the local share of the cost of new schools. Now that debt charges on new buildings are eligible only for the first-level rate of grant (75% for a board of average wealth) this high rate of grant on second-level extraordinary expenditures must be justified on other grounds.

To achieve complete equity, the province should probably adopt the practice of fully funding approved costs of transportation and debt charges (or of capital from current where such a method of financing capital acquisitions is approved). For this to be done it might be necessary to impose somewhat stricter controls on transportation expenditure. Controls on new construction and renovation could hardly be stricter under full funding than they are today with about 80% funding.

It must be remembered of course, that a main part of the barrier of high variation in REE/WP was removed in 1969 with the formation of the new large units of school administration. The variance in REE/WP was drastically reduced. Suddenly, there were no boards all of whose pupils attended schools with debenture debt, nor were there boards with no expenditure for pupil transportation.

It is important, in thinking about this barrier, to realize that the present grant system does equalize to the extent that all boards having the same REE/WP have the same equalized mill rate. However, it is often the poorer, rural boards that have the highest REE/WP and thus their total mill rate to provide the recognized program (ordinary and extraordinary) will be greater than that of richer, more urbanized boards.

The Barrier of Variable Unit Costs

The final major barrier to the achievement of fiscal equity is related to the fact that \$100 does not buy the same education everywhere or for all pupils. It is widely accepted that technical courses in high school are more expensive on a per-pupil basis than are academic courses, that the education of the physically and mentally handicapped is more expensive than that of the "ordinary" pupil, and that, on the average, education costs more per-pupil in very small schools than in schools of average and large size. There are other factors, as well, that can influence cost per-pupil. Some of these are:

1. Smallness of the administrative unit leading to higher unit administrative costs.
2. Concentrations of pupils from homes,

- (i) where English or French is not the first language
- (ii) that contain single parent families
- (iii) containing pupils from a different cultural background
- (iv) operating below the poverty level.

3. Isolation from major centres of population which substantially increases the price of goods and services.

4. The qualifications and years of service of the teaching staff; and

5. Cost of living differentials between different areas of the province.

The proposal made by the Committee on the Costs of Education (The MacEwan Committee) would completely ignore these differentials; and all those who complain of the complexity of the Ontario system of grants to school boards seem to endorse that proposal. The proposal would be equitable under one condition: viz. that the variation from board to board in the above-mentioned factors is minimal. This is demonstrably not true. As has already been noted (see p. 4), teacher qualifications and experience alone can account for differences in per-pupil expenditure of up to \$200. Only in certain large, urban areas is it economical to provide proper education for such extremely high-cost pupils as aphasics and those with cerebral palsy. Some boards, of necessity, and not just as a matter of policy, have a much higher percentage of small schools and such elementary schools, if they are to provide equitable educational services, require from 20 to 45 percent more expenditure per-pupil than do schools of 300 or more pupils.¹ There can be little doubt that the same holds true for small secondary schools. This problem is one that will be exacerbated by declining enrolment--another factor that varies widely in its impact from board to board.

Ontario has gone a long way to try to overcome this barrier. It has done so by the use of weighting factors. It is not within the scope of this

¹E.B. Rideout et al. Educational, Social and Financial Implications to School Boards of Declining Enrolments.

report to discuss these factors in detail.¹ Suffice it to say that weighting factors are used to compensate for all of the variations in cost noted above with the exception of number 5, which is covered in part by number 3 in any case. There still remains some discussion as to the accuracy of some of these factors and the factors themselves are re-examined each year and improvements instituted. (In 1978, for example, two factors which it had become difficult to authenticate: one for age of school buildings and the other for admissions other than at the beginning of the school year were discontinued and a new one adopted. The latter was in recognition that grade 9 and 10 pupils in Roman Catholic separate schools cost more to educate than does the average Kindergarten to Grade 8 student in those schools. The weighting factor was needed, since not all separate school boards and no public school boards have such pupils to educate.)

Other provinces, notably Nova Scotia, Newfoundland and Quebec recognize the differential per-pupil cost of teachers' salaries by incorporating a provincial salary-scale grid in the foundation program. In this way, they go much further than Ontario in recognizing for grant purposes the differences in cost caused by different average levels of teacher qualifications and experience.

A feature of the extra expenditure per-pupil generated by the Ontario weighting factors is that it is all provincial money. While this has always been so since 1969, it is more obvious in 1978 since the emphasis has shifted from the rate of grant to the standardized mill rate. Table 10 shows the effect of a weighting factor of 1.1 as opposed to one of 1.0.

¹See Report of the Ministerial Commission on the Organization and Financing of the Public and Secondary School Systems in Metropolitan Towns.

Table 10: Effect of Weighting Factor on ROE and Mill Rates

<u>Item</u>	<u>Board A (with weighting)</u>	<u>Board A (without weighting)</u>
1. Average Daily Enrolment (ADE)	1,000	1,000
2. Equalized Assessment	\$65,000,000	\$65,000,000
3. Grant Weighting Factor	1.1	1.0
4. Weighted ADE(WADE) (3x1)	1,100	1,000
5. ROE/WP	\$1,290	\$1,290
6. ROE (5x4)	\$1,419,000	\$1,290,000
7. Equalized Mill Rate ^a	7.931	7.931
8. Yield of Eq. Mill Rate (7x2)	\$515,515	\$515,515
9. Grant (6-8)	\$903,458	\$774,485

^aThe mill rate of a board spending the ceiling amount of \$1,299/WP is set in the Regulation at 7.986 mills. Item 7 is calculated by the formula: Mill Rate = \$1,290 ÷ \$1,299 x 7.986 mills.

It will be noted that the .1 (10%) weighting of all the board's pupils would result in \$129,000 being added to the ROE. The local contribution remains the same, however, at \$515,515, because the mill rate is determined by the expenditure per weighted pupil. Thus all of the additional expenditure authorized by the weighting factor is covered by an increase in the provincial grant. Note, however, that this is not the same thing as saying that all of the additional cost to a board of a condition recognized by a weighting factor is paid by the province. It may very well be that the weighting factor does not represent the full additional cost to the board of providing the service (technical education, special education) or undergoing the hardship (small schools, small board, northern isolation, high

proportion of degree teachers). This has obviously been the case in Metropolitan Toronto, specifically for their special education and compensatory education programs and assuredly (since there is no intent in the weighting factor to provide even 50% compensation) with respect to the additional cost of more highly qualified teachers who tend to congregate in the metropolitan area and other large commercial and cultural centres.

Summary of Barriers to Fiscal Equity

We have discussed five traditional barriers to the achievement of fiscal equity for educational purposes in Ontario. The province, through its annually amended general legislative grant regulations and the underlying statutes has been able to correct four of these barriers to a remarkable degree. The proposed tax reform was to have completed the task, but this seems to have been shelved indefinitely. This has led some to propose eliminating property taxation entirely as a method for financing education, or, alternatively to use non-commercial assessment to finance only expenditures that are not recognized for grant purposes. This latter policy seems to be no solution at all. It is in this area of unapproved expenditures that the inequities of the property tax are most burdensome. At the present time all assessment, no matter how poorly evaluated, is, in effect, pooled provincially for the support of the total recognized ordinary and extraordinary expenditures of boards.

There seems to be a paradox concerning the absence or presence of market-value assessment. When it seemed certain that the new system was going to be introduced, there was great concern among many that there would be serious disruption of the school grant plan. But now that it seems the

new assessment will not take place, there is sudden concern that the existing mechanisms for financing education are no longer adequate. I do not share either concern, believing that relatively simple adjustments to the grant plan could have accommodated it well to tax reform and can be made now that tax reform has been postponed or abandoned. If we are so far along the road to centralization that we can talk with equanimity of the abolition of residential and farm property tax revenue for education, we are surely far enough along to be able to make use of the device of negative grants where necessary to achieve fiscal equity--a device which at least leaves some decision-making with respect to education to local authorities.

Declining Enrolment and School Finance

The chief financial implication of declining enrolment is that education is going to cost less than it would have had there not been declining enrolments, other things being equal. No one, to my knowledge, has argued that inflation and high unemployment are caused by or aggravated by declining enrolment. One can argue quite the other way--that it was the inordinately rapid increases in enrolment of the fifties and sixties that are partly responsible for today's economic problems--massive annual new additions to the work force and the "onward and upward forever" philosophy of an ever-improving standard of living. And one can point out that when the graduates of the present generation of school children enter the work force they will exert downward pressure on unemployment--the annual increase in the work force will be drastically cut from present figures.

People think declining enrolment is the villain because they see mill rates rising and the total cost of education rising when enrolments are declining.

The costs of education would be rising much more rapidly if there were not declining enrolments. Costs are increasing in spite of not because of declining enrolments. We must remember that we are living at a time when inflation is ranging from 6 to 9 percent annually. Since enrolments have not declined even as much as 5 percent per annum it is obvious that the total cost of education must be increasing.

For boards operating at or below the ROE/WP ceiling, (\$1,299 elementary and \$1,841 secondary in 1978) local mill rates on ordinary expenditure are a function of the following factors:

1. The ceiling level of ROE/WP set by the province
2. The degree to which a board is able to spend below the ceiling
3. The mill rate set by the Regulation for a board spending exactly at the ceiling (a reflection of the rate of grant the province will pay to a board of average wealth).

For boards operating above the ceiling the mill rates are a function of:

1. Factors 1 and 3 above
2. The board's equalized assessment, and
3. The ordinary expenditure in excess of the ceiling (which in turn, is the product of the average daily enrolment of the board and the dollars per pupil of ordinary expenditure above the ceiling).

It is to be noted that for boards operating within the ROE/WP ceiling, neither the number of pupils nor the assessment has any effect on the operating mill rate. This means that it costs the local taxpayers no more if enrolments increase and no less if enrolments decline (total equalized assessment held constant). In the first case, the province pays the full additional ceiling cost per pupil, and in the second case the province receives the full benefit of the decline in enrolment.

But for boards operating above the ceiling, both the board's wealth, the number of pupils it has to educate, and the dollars per-pupil it spends above ceiling affect the additional mill rate required beyond that set by the Regulation to provide the ceiling level of expenditure. Such boards, then, do feel the effect of increased enrolments or decreased enrolments. The former pushes the mill rate up, while the latter pulls it down. Table 11 illustrates this. (Board B) with 1,000 pupils has a mill rate of 7.986 to yield (in grant and levy) \$1,299/WP. If it had 10% more pupils (Board C) or 10% fewer (Board A) its mill rate would be the same. But, for the \$41/WP it spends above the ceiling its additional mill rate is .83 mills; if it had 10% more pupils its excess mill rate would be 10% higher at .91 mills and if it had 10% fewer pupils its excess mill rate would be 10% lower at .75 mills.

It is to be noted that if these boards were 20% poorer (\$37,600,000 of assessment) the mill rate to raise the \$1,299/WP would remain the same but each of the excess mill rates would be 20% higher. Similarly, if board C were spending 20% more in excess of \$1,299/WP (i.e., \$1,348.20/WP) its excess mill rate would be 20% higher. Thus the excess mill rate for unrecognized ordinary expenditure is directly proportional to excess expenditure per-pupil and average daily enrolment, and inversely proportional to equalized assessment; the ceiling mill rate, however, varies only with ROE/WP.

This discussion points up the fact that it is government policy with respect to where the ceiling on ROE/WP is placed each year that has most to do with the fiscal equity present in the school grant system. However, under a system where the total dollars available for school grants is predetermined, the higher the ceiling is placed (to minimize the number of

Table 11: Illustration of How Mill Rate is Independent of Enrolment At or Below the Ceiling But Sensitive to Increases or Decreases in Enrolment Above it

<u>Item</u>	<u>Board A</u>	<u>Board B</u>	<u>Board C</u>
1. WADE ^a	900	1,000	1,100
2. Equal. Assessment	\$49,500,000	\$49,500,000	\$49,500,000
3. OE/WP ^b	\$1,340	\$1,340	\$1,340
4. ROE/WP ^c	\$1,299	\$1,299	\$1,299
5. Ceiling Mill Rate ^d	7.986	7.986	7.986
6. OE in Excess of ROE ^e	\$36,900	\$41,000	\$45,100
7. Mill Rate to Provide Excess ^f	.75	.83	.91

^aWeighted average daily enrolment. Note that board A has 10% less and board C 10% more than board B.

^bOrdinary expenditure per weighted pupil.

^cRecognized ordinary expenditure per weighted pupil.

^dSet by Regulation for all boards spending \$1,299/WP

^f $1,000 \times (6) \div (2)$ Note that board A's excess mill rate is 10% less and board C's 10% more than board B's, but that their mill rates for the standard program (\$1,299/WP) are all the same.

boards that exceed it) the lower the share of the recognized expenditure that can be covered by provincial grant and hence the higher the mill rate needed to provide the ceiling rate of expenditure for all boards. Thus to raise the ceiling by 10 percent would necessitate an increase of more than 10 percent in the required mill rate (i.e., if the total of provincial grants is to rise by less than 10%).

What has been happening in recent years, coinciding with, but not caused by declining enrolment, has been a lessening of the provincial contribution to recognized ordinary expenditure. This has caused the equalized mill rate required to provide the ceiling level of expenditure to rise dramatically. Coupled with the fact that more and more boards, particularly secondary boards, have had to operate above the ceiling this has resulted in large increases in mill rate. Perhaps a look at what has happened in recent years in this regard would be helpful in understanding just how flexible the grant plan is in its ability to adjust to provincial policy changes. Table 12 shows the changes, since 1970, in the ceilings in ROE/WP and the equalized mill rates required by all boards to provide that ceiling level. In addition, Table 12 shows the percentage increase or decrease from each year to the next in both the ceiling amounts and the required mill rates as well as the corresponding figures for the 8-year period.

It will be noted from Table 12 that between 1970 and 1973 it was provincial policy to decrease the local mill rate year by year required to finance a slowly increasing ceiling on ROE/WP for both the elementary and secondary panels. This was the period during which the province was trying to reach the goal of paying for 60 percent of the total expenditures of school boards from provincial revenue sources. During the next three years, 1974-76 ceiling increases were much greater, particularly for elementary boards, where

TABLE 12

ROE/WP CEILINGS AND MILL RATES REQUIRED TO PROVIDE THIM, 1970-1978, TOGETHER
WITH ANNUAL PERCENTAGE CHANGES IN BOTH FIGURES

Year	Elementary Boards				Secondary Boards			
	Ceiling on ROE/WP	Mill Rate to Produce Ceiling	% INC/ (DEC) In Ceiling	% INC/ (DEC) In Mill Rate	Ceiling on ROE/WP	Mill Rate to Produce Ceiling	% INC/ (DEC) In Ceiling	% INC/ (DEC) In Mill Rate
1970	\$ 500	5.679	-	-	\$1000	4.259	-	-
1971	545	4.899	9.00	(13.73) ^a	1060	3.711	6.00	(12.87)
1972	595	4.478	9.17	(8.59)	1100	3.403	3.77	(8.30)
1973	630	4.380	5.58	(2.19)	1130	3.340	2.73	(1.85)
1974	704	4.900	11.75	11.87	1231	3.742	8.94	12.04
1975	926	6.036	31.53	23.18	1441	4.136	17.06	10.53
1976	1080	7.036	16.63	16.57	1556	5.334	7.98	28.97
1977	1197	7.458	10.83	6.00	1712	5.761	10.03	8.01
1978	1299	7.986	8.52	7.08	1841	6.119	7.54	6.21
1970-78		159.80		40.62		84.10		43.67

^aFigures in parenthesis are negative (decreases).

they were respectively 11.75%, 31.53% and 16.63%; secondary ceilings in the same three years increased by 8.94%, 17.06% and 7.98%. There was a big difference, however, in the percentage changes in the required mill rate. For the first time since 1970 mill rates increased rather than decreased. For elementary schools the mill rate increased in 1974 at a slightly higher rate than the ceiling (11.87% as opposed to 11.75%) while the secondary mill rate was dramatically higher than its ceiling increase (12.04% as opposed to 8.94%). In 1975 when both elementary and secondary ceilings rose by the highest percentage in the whole 8-year period (31.53% elementary and 17.06% secondary) there were smaller though still substantial increases in the required mill rate (23.18% elementary and 10.53% secondary). The year 1976 marked a turning point in government policy. That was the year (1) the absolute expenditure ceilings per weighted pupil were dropped, (2) it was decided to no longer attempt to meet 60 percent of all school board expenditure through provincial grants, and (3) the policy (introduced in 1969) of funding elementary and secondary education at the same rate was abandoned. As a result of the two latter policy changes, the secondary required mill rate rose 28.97% for a 7.98% rise in its ceiling while the elementary school ceiling and mill rate rose at about the same rate (ceiling, 16.63% and mill rate 16.57%).

Since 1976, ceiling increases in percentage terms have dropped back, with the elementary ceilings continuing to increase at a higher percentage than secondary ceilings as they have every year since 1970.¹ But what is more notable is that the required mill rate increases have dropped sharply back (to 6% and

¹With the result that whereas the elementary ceiling in 1970 was only 50% of the secondary, in 1978 it is 70.56% of it.

and 7.08% for elementary in 1977 and 1978 and to 8.01% and 6.31% for secondary in those same year).

It was mentioned earlier that the savings attributable to declining enrolment on expenditure up to the ceiling accrue to the province rather than to the school boards. That is not the whole story, however; the monies thus saved by the province enable it to set lower effective mill rates than would otherwise be needed to provide the increase. That is why in 1977 and 1978 it was possible to have the mill rates increase by a lower percentage than the ceilings. In other words, the money saved by the province on declining enrolment is used to reduce the basic mill rates required to fund recognized ordinary and extraordinary expenditure.

Finally, Table 12 indicates that the elementary ceiling has increased by 159.8% since 1970 while the required local mill rate to provide that level of expenditure has increased by only 40.62%. For secondary boards the picture is quite different: the ceiling has increased by only 84.1% in the 8 years while the mill rate has increased by 43.67% -- more than that for elementary schools. These figures illustrate two things:

- (1) provincial policy has been to provide for quality improvements in elementary schools to a much greater extent than in secondary schools. These are reflected in a continuing decrease in the elementary pupil/teacher ratio during the period while the PTR of secondary schools has tended to level off and even rise; and
- (2) provincial policy has been to absorb all but an average of 5% per year of the increased ceiling expenditures.

But these figures (Table 12) do not tell the whole story. It is necessary, when talking about educational "improvements" and about tax burdens

TABLE 13

ROE/WP CEILINGS (1970-78) DEFLATED BY USE OF THE CPI AND TAXES IN CONSTANT (1971)
DOLLARS ON A \$20,000 HOME REQUIRED TO PROVIDE THE CEILINGS

YEAR	CPI	ROE/WP Ceiling			Tax on \$20,000 Home in Constant Total			
		Elementary Current \$	Constant \$	Secondary Current \$	Constant \$	Elementary \$	Secondary \$	Total \$
1970	97.2	500	514.40	1000	1028.81	116.85	87.63	204.48
1971	100.0	545	545.00	1060	1060.90	97.98	74.22	172.20
1972	104.8	595	567.75	1100	1049.62	85.46	64.94	150.40
1973	112.7	630	559.01	1130	1002.63	77.73	59.27	137.00
1974	125.0	707	563.20	1231	984.80	78.40	59.87	138.27
1975	138.5	926	668.59	1441	1040.43	87.16	59.73	146.89
1976	148.9	1080	725.32	1556	1123.47	94.51	71.65	166.16
1977	160.8	1197	744.40	1712	1064.68	92.76	71.65	164.41
1978	171.2 ^c	1299	758.76	1841	1075.35	93.29	41.48	164.77

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INCREASE/(DECREASE), 1970-78, IN 1971 CONSTANT DOLLARS

	Ceilings			Tax on \$20,000 Home		
	Elementary	Secondary	Elementary	Secondary	Secondary	Total
	\$	%	\$	\$	%	\$
244.36	47.50	45.54	4.52	(26.56)	(22.73)	(16.15) (18.43) (39.71) (19.42)

^aCurrent \$ x 100 : CPI^bTable 12 mill rate : 1000 x \$20,000 : 100 : CPI^cApril, 1978, CPI used as proxy for 1978

to look at these in terms of real or constant dollars, not in inflated dollars. Table 13 uses the consumer price index to deflate the 1970-78 ceilings and the tax paid on a home with an equalized assessment of \$20,000. What this table shows clearly is that in terms of 1971 dollars there has been a substantial (47.5%) increase in real elementary ceilings since 1970. Not all of this will be attributable to quality increases (chiefly decreases in PTR) but will also reflect increases in average teacher salaries caused by increases in average qualifications (the effect of the requirement that all new elementary teachers have a Bachelor's degree) and by scale increases in excess of the rate of inflation. On the other hand, secondary ceilings have increased (in real terms) only 4.52% over the 8-year period. But what is most startling is that local taxation (in constant dollars) to produce the local share of the ordinary ceilings has declined by 22.73% elementary and 8.43% secondary for an average of 19.42% over the 8-year period. These figures do not lend much support to those who have been decrying the mammoth increases in education costs and education taxes. It is obvious from a study of these two tables that the outcry about rapid increases in taxes is a result of provincial policy from 1970-1974 not only to shield educational taxpayers from the effects of inflation but to actually lower their taxes. When this policy was finally abandoned, the resulting increases were larger than they would have been had they been allowed to reflect some inflationary pressure each year. But it is noteworthy that for a board operating at the 1978 ceilings (which are respectively 47.5% and 4.52% higher in real terms than in the 1970 base year) the school tax to provide those levels of expenditure (also in real terms) will be 19.42% less than it was in 1970. (It is to be remembered that the assessments have not been changed since 1970.) These statistics do not apply to boards that are spending substantially more than the ceiling level.

Tables V, VI and VII in Appendix A look at actual per-pupil costs (including unrecognized ordinary and all extraordinary expenditures), per-pupil

grants, and per-capita local taxation for 1970-76 in current and constant dollars. These tables indicate the results for local taxation, particularly, of the drastic turnaround in provincial policy referred to earlier. Note that while local tax per capita (in constant dollars) increased by only 3.20% over the 6-year period from 1970-76 it increased 23.74% in 1976 over 1975.

So that the reader may be able to assess the degree to which ceilings actually represent attainable levels of expenditure, Table 14 has been prepared, showing number of boards over and under ceiling in 1977 and the degree to which they were over or under. It is apparent that in 1977 the elementary ceiling was a realistic one in that 59 out of 121 boards (48.76%) were able to operate within it. It is to be noted also that, of the 62 boards that were above the ceiling, 51 were above by less than \$100/WP and only 11 boards (9% of the total of 121) spent \$100 or more above the ceiling. But Table 14 also shows that the ceiling level was much less adequate for secondary boards; only 15 of the 71 boards (21.1%) were able to keep their expenditures within ceiling. Of those exceeding the ceiling, 23 (32.4% of all boards) were spending \$100/WP or more above the ceiling. These facts must be borne in mind when evaluating the plan earlier suggested, under which all assessment would be pooled provincially while still allowing local option with respect to spending patterns (Plan D).

We have established, I believe, that it is not declining enrolment that is the villain of the piece where school finance is concerned. On the contrary, declining enrolment offers a unique opportunity to do those things in education that it was not possible to do when enrolments were rising -- reduce class size, provide better compensatory education, and adequately staff and fund smaller schools. The only reason we do not see these things being done is that the problem is not declining enrolment but declining commitment to education in a

TABLE 14

DISTRIBUTION OF BOARDS SPENDING ABOVE AND BELOW ROE/WP CEILINGS^a IN 1977

Amount	Boards Above Ceiling		Boards Below Ceiling		Number	
	Elementary	Secondary	Amount	Elementary	Secondary	
\$ 1- 49	35	13	\$ 1- 49	19	9	
50- 99	16	20	50- 99	24	5	
100-199	7	16	100-199	12	1	
200+	4	7	200+	4	0	
Totals	62/121	56/71		59/121	15/71	

a1977 ceilings were: Elementary, \$1197 and Secondary, \$1712.

period of financial retrenchment. With anything close to full employment our society should be in a better position to finance education than at any time in the last 40 years -- fewer school children and a very large and rapidly increasing work force. Our main problem as a society, then, is to improve our economic position. It is hard to see just how reducing employment in the public sector contributes to such improvement.

There are, however, some minor implications of declining enrolment for school finance and school grant policy. The most important relates to the fact that per-pupil expenditure tends to increase as a direct result of declining enrolment. This comes about because of several factors, among which are the following:

1. The cost of administrative staff both at the board and school level has to be spread over fewer pupils and it is not always possible to cut back such staff at the same rate as enrolments decline.
2. The cost per pupil of operating and maintaining school property rises and such costs are even more difficult than those relating to administrative staff to cut back.
3. As the schools begin to drop below 200 pupils, unit costs for teachers' salaries begin to rise if standards are to be maintained because of the difficulty in holding to a board-wide pupil-teacher ratio in small K-6 or K-8 schools.
4. The cost per pupil-mile of transportation increases as fewer children ride on a bus but not enough fewer to use a smaller bus.
5. The cost per pupil of outstanding debt charges rises. This is counteracted, however, by the fact that there is a fall-off in new debt charges as new buildings need no longer be provided.

6. As enrolments continue to decline and new, young teachers are hired in only small numbers, the per-pupil cost of teachers' salaries will rise because the average years of service will be at or approaching the maximum recognized by the grid and the average qualifications of teachers will rise as non-degree teachers retire and the remaining teachers upgrade their qualifications.

If it can be assumed that declining enrolment affects all boards proportionally, then there is no problem that needs to be addressed as among the boards. All that would be needed would be a recognition in the ceilings of higher annual per-pupil cost increases than might otherwise be expected. But we know that declining enrolment is affecting boards differentially. As CODE's first Interim Report showed, some boards will experience increases in enrolment between 1976 and 1986 while others will experience decreases ranging from one to 30 percent.

There would seem to be two different ways of adjusting the grant plan to compensate for this wide variance in the effects of decline.

1. In order to allow for an orderly retrenchment of staff, both academic and non-academic, the average daily enrolment (ADE) on which grants are based could be adjusted. At present, ADE is determined by adding 30% of the enrolment at the end of January, 30% of the enrolment at the end of April and 40% of the enrolment at the end of September. Thus the ADE figure reflects both the normal wastage between January and April and the quite significant drop in September when the new term starts. A board with declining enrolment has to plan in January-February for the last 6 months of one school and the first 4 months of the next school year. The amount of the decline is always hard to estimate -- harder for Ontario than for boards in other provinces because only in Ontario can elementary pupils switch back and forth between the public and separate systems. An obvious first step in adjusting the grant system

to declining enrolment, then, would be to use the enrolment as of January 31st for all grant purposes. Given commitment to a predetermined pool of money for school grants, this policy would produce no more money in total but would tend to redistribute what there was to the greater advantage of those boards that had the greatest drop in enrolment between January and September. (If all had the same percentage drop it would have no effect on the grant of individual boards at all.)¹ The adoption of this practice would go far towards achieving better planning for the fiscal year and would cushion the impact of declines in enrolment during a fiscal year.

For longer-term adjustments to permit orderly cutbacks of personnel, several devices have been used, most common of which are the following:

a. The use of a moving two- or three-year average of enrolment or ADE as the figure to be used for the current year. Thus, for 1978, a board's ADE for grant purposes would be considered to be the average of its ADE for 1976 and 1977 or for 1975 through 1977. Such a device would work well for boards in decline but would penalize growing boards; these should be permitted to use the actual ADE of the current year. It is probable that this method of compensating for declining enrolment from one fiscal year to the next would overcompensate, particularly the use of the 3-year average. On the other hand, it gives boards greater leeway in their attempts to adjust staff to declines.

b. The use of a weighting factor to compensate for decline. This could be a very simple one such as a weighting factor of .01 for every 1% of enrolment decline from one January to the next. Again, this might perhaps

¹Since there are a few growing boards it would be advisable to count enrolment as the greater of the January enrolment and 60% of that enrolment added to 40% of the September enrolment.

be too generous when coupled with the use of January enrolment for the whole year. A better system of weighting might be one in which the weighting factor reflected only the loss of pupils above some basic percent (say, 1% or 2%). Under such a plan a board would receive a weighting factor of .027 or .017 for a 3.7% decline in enrolment from one January to the next.

c. A method used in Ontario between 1973 and 1975 is also plausible. It is a variation of the weighting-factor approach under which from 30 to 50 percent of the decline in enrolment from one fiscal year to the next would be counted as though it still existed. Probably a figure of about 35-40% could be justified for the purposes envisaged in this section.

2. In order to compensate for those aspects of declining enrolment that last for more than one year, such as the extra costs of small schools, the small-school weighting factor could be enriched so that it comes closer to paying the actual increased costs of smaller schools. A study could be made, too, as to the adequacy of the present weighting factor for small boards.

One of the dilemmas facing boards -- and one which will have to be faced by the province -- is what to do about formerly average or large schools whose enrolment has dropped to the point where unit costs must rise if quality education is to continue to be provided. In such schools, in particular, the per-pupil cost of maintenance and operation can become very high, in addition to the normal rise in the per-pupil cost of administration, secretarial service and classroom teaching that are characteristic of schools below 200 pupils.¹ The dilemma is whether to close such community schools and transport the pupils (or a large number of them) to another school, or to keep them open even though the unit costs are higher. Both options will result in higher costs -- the former for transportation and the latter for higher unit costs. With the cost

¹See Rideout et al., Educational, Social and Financial Implications to School Boards of Declining Enrolments, Ch. 3.

of fuel steadily rising, transportation that is not absolutely necessary may become unacceptable in the near future. At present, the higher level of provincial support for transportation as opposed to that for small schools persuades boards to go the closure route. If this trend is to be halted (in view of both the increasing energy costs and the province's concern for maintaining community schools) then the grant structure must be changed to reflect this change in public policy. Less generous grants on second-level recognized extraordinary expenditure (which includes transportation expenditure), or more stringent controls on what transportation will be approved for grant, together with more generous weighting factors for small schools (including those in urban areas) would be steps in this direction.

SUMMARY

This paper has discussed several barriers to complete fiscal equity for all school boards that are commonly encountered and has shown how they have been dealt with in Ontario under "established parameters". It has also examined two possible ways of achieving greater fiscal equity for boards spending above the provincially-imposed ceilings of expenditure per weighted pupil (local pooling and provincial pooling of the assessment of public corporations) and one way of achieving complete fiscal equity by the provincial pooling of all local assessment in such a way that local decision-making can be maintained and extended to all boards, while at the same time encouraging local economy in spending. Other possible solutions have also been discussed: (1) complete provincial assumption of the administration and finance of education as advocated by Cameron, (2) the restriction of the tax on residential assessment to the financing of local education expenditures above the ceilings and (3) the problems inherent in the postponement of tax reform.

It has been pointed out that declining enrolment has only minor implications for school finance -- implications that can be corrected by rather

minor technical adjustments to the Grant Regulations. Mention has been made of the very real opportunity present in Ontario, as soon as the acuity of the present financial stringency abates, to upgrade several aspects of education now that we have a large work force to supply personnel and revenues to look after a dwindling school population.

This paper has demonstrated that the present grant structure is extremely flexible; that it can accommodate either tax reform or its absence (though, if the latter, necessary adjustments will have to be made in equalization factors to reflect property-value changes since 1970); that it can handle negative-grant adaptations if the political will is there and, most important, that it can be made to reflect very minute changes in provincial policy with respect to various aspects of education.

This author believes that there is still much to be said for some local decision-making in education -- particularly in a province as large and geographically extensive as Ontario. He therefore believes that the ideal solution is to, in effect, pool all assessment (as it is now up to the ceiling levels of ROE) so that, at whatever level any board wishes to spend, its mill rate will be the same regardless of local wealth. To make this economically feasible a sliding scale of support, along the lines suggested, should be instituted so that local taxes will rise proportionately more than the rise in level of expenditure. Concomitant with this, equity demands that weighting factors continue to be used and refined as new information becomes available; such weighting factors should probably include one for declining enrolment from one fiscal year to the next but the factor should not correct for 100% of the students lost. The grant plan should recognize that for some time small schools will be with us and provide for the additional costs they entail.

Once complete fiscal equity is attained for all boards, all boards should be required to submit requisitions to municipal authorities in the same way and the apportionment of the requisitions among municipalities should be on

the same basis for all boards -- equalized assessment. There would no longer be any need for separate school boards to have the power to set their mill rate.

There is one further equity-related issue that is aggravated by declining enrolment -- the differences between boards in the per-pupil cost of teachers' salaries caused by differences in average levels of qualifications and in years of paid teaching experience. Declining enrolment will heighten these differences, since most boards no longer will be able, by their hiring policies, to do much about the composition of their teaching staffs. As has already been pointed out, such differences can account for a \$100 or more differential in cost per pupil. Should a board that has additional costs attributable to the constitution of its teaching staff be required to have a higher mill rate for that reason? If not, the weighting factors should be adjusted to reflect the full additional cost of teacher qualifications and years of experience above those of a board at the 25th percentile.

There are other ways, short of complete provincial control of schools, by which the control of the central authority could be enhanced. One of the most persuasive of these is, of course, the adoption by the province, in negotiation with the Ontario Teachers' Federation and the Ontario School Trustees' Council, of a province-wide salary grid (with suitable regional adjustments) together with a formula for determining the number of teachers and other certified staff a board would be able to hire. Through this device, the province could control 75% of education costs and achieve as well a large measure of equality of educational opportunity. Such a policy would need to be rather complex since it would need adjustments for small schools, remote areas, inner-city problems and the various forms of special education. This type of policy, already in effect in Quebec, Newfoundland, Prince Edward Island, and partially in New Brunswick, Nova Scotia and Saskatchewan, would substitute for the less specific use of weighting factors.

The province will have to choose, in the not too distant future, between these three alternatives in the financing of education:

1. Complete provincial operation of the schools, either without school boards or with boards acting only as advisory and administrative bodies responsible chiefly to the central authority;
2. The continuation of local boards but with salary grids and number of teachers determined centrally; or
3. An extension of the present Ontario system with the gradual elimination of the remaining aspects of fiscal inequality -- the system described more fully in this paper.

Appendix A

TABLE I
ILLUSTRATION OF GRANT PER PUPIL AND MILL RATES OF SEVEN BOARDS
WITH VARYING AMOUNTS OF CORPORATION ASSESSMENT UNDER 1977 GRANT REGULATIONS

Board/ Item	Rich PSB SSB	Coterminal SSB	Av. Wealth PSB	Coterminal SSB	Poor PSB	Coterminal SSB	Dummy PSB	Provincial Total
1. Corp. Ass	200,000,000	10,000,000	50,000,000	5,000,000	8,000,000	800,000,000		1,073,000,000
2. Non/Corp. Ass	100,000,000	80,000,000	100,000,000	30,000,000	20,000,000	12,000,000	593,176,000	935,176,000
3. Tot. Eq. Ass. a	300,000,000	90,000,000	150,000,000	35,000,000	28,000,000	12,000,000	1,393,176,000	2,008,176,000
4. WAD ^b	2,142	3,150	2,336	1,452	1,000	1,200	20,000	31,280
5. Ass/WP ^c	140,056	28,571	64,212	24,105	28,000	10,000	69,659	64,200
6. 77 Exp/WP ^d	1,618	1,340	1,220	1,200	1,250	1,240	1,197	1,245,43
7. Rate of ^e Grant	12.7377%	82.1988%	59.9925%	84.9813%	82.5545%	93.7695%	56.5988%	60%
8. Grant/WP ^f	152.47	983.92	718.11	1,017.23	988.18	1,122.42	677.49	718.20
9. Loc. Levy WP ^g	1,465.53	356.08	501.89	182.77	261.82	177.58	519.51	527.25
10. Mill Rate ^h	10.464	12.463	7.816	7.582	9.351	11.758	7.458	8,212

a (1) + (2)

b Weighted average daily enrolment

c (3) ÷ (4)

d Recognized ordinary expenditure per weighted pupil

e Calculated from formula: Rate of Grant (%) = 100 - 40 $(\frac{\text{Ass}/\text{WP}}{\$64,200})$

f (7) ÷ 100 × \$1197

g (6) - (8)

h (9) × 1000 ÷ (5)

i "Province" conceived of as the total of the seven boards.

Appendix A

TABLE II
ILLUSTRATION OF THE EFFECT OF LOCAL POOLING OF CORPORATION ASSESSMENT (PER-PUPIL BASIS)
ON 1977 GRANTS FOR THE SAME BOARDS AND DATA AS USED IN TABLE I

Board/ Item	Rich PSB SSB	Coterminous SSB	Av. Wealth PSB	Coterminous Poor PSB	Coterminous SSB	Dummy PSB	Provincial Total
1. Pro-rated Corp. ^a	85,000,000	125,000,000	33,917,635	21,082,365	3,636,363	4,363,367	800,000,000
2. Tot. Eq. Ass ^b	185,000,000	205,000,000	133,917,635	51,082,365	23,636,363	16,363,637	1,393,176,000
3. Ass/WP ^c	86,368	65,079	57,328	35,181	23,636	13,636	69,659
4. Grant % ^d	46.19%	59.45%	64.28%	78.08%	85.27%	91.50%	56.60%
5. Grant/WP ^e	552.89	711.62	769.43	934.62	1,020.68	1,095.26	677.50
6. Levy/WP ^f	1,065.11	628.38	450.57	265.38	229.32	144.74	519.50
7. Mill Rate ^g	12.332	9.656	7,860	7,543	9,702	10,615	7,458
							8,212

a Calculated from Table I by summing the corporation assessment (Item 1) of the coterminous Public and separate boards and dividing it in the same proportion as the total WADE (item 4) was divided.

b (Table I, Item 2) + (Table II, Item 1)

c Item 2 ÷ (Table I, Item 4)

d Calculated from formula: Rate of Grant (%) = $100 - 40 \left(\frac{\text{Ass}/\text{WP}}{\$64,200} \right)$

e $(4) \div 100 \times \$1197$

f (Table I, Item 6) - (Table II, Item 6)

g $(6) \times 1000 \div (3)$

Appendix A

TABLE III
ILLUSTRATION OF THE EFFECT OF PROVINCIAL POOLING OF CORPORATION ASSESSMENT
ON 1977 GRANTS FOR THE SAME BOARDS AND DATA AS USED IN TABLE I

Board/ Item	Rich PSB	Coterminous SSB	Av. Wealth PSB	Coterminous SSB	Poor PSB	Coterminous SSB	Dummy PSB	Provincial Total
1. Non-Corp. Ass. ^a	100,000,000	80,000,000	100,000,000	30,000,000	20,000,000	12,000,000	593,176,000	935,176,000
2. Ass/WP ^b	46,685	25,397	42,808	20,661	20,000	10,000	29,659	29,897
3. Rate of Grant ^c	65.842%	81.418%	68.679%	84.383%	85.367%	92.683%	78.30%	78.1255%
4. Per Pup Corp. Tax	277.71	277.71	277.71	277.71	277.71	277.71	277.71	277.71
5. Balance of ^f Exp/WP	1,340.29	1,062.29	942.29	922.29	972.29	962.29	919.29	967.72
6. Grant/WP ^g	605.28	748.47	631.36	780.32	784.77	852.03	719.80	718.20
7. Levy/WP ^h	735.01	313.84	310.93	141.97	187.52	110.26	199.49	249.52
8. Mill Rate ⁱ	15.744	12.357	7.263	6.871	9.376	11.026	6.726	8.346

^a from Table I, Item 1^b (Table II, Item 1) ÷ Table I, Item 4)
^c Calculated from the formula: Rate of Grant (%) = $100 \cdot \frac{\text{Ass}/\text{WP}}{29,897}$
^d (Table I, Item 8, last col.) × 100 ÷ (\$1197 - \$277.71)^e $\frac{(\text{Table I, Item 1})}{100} \cdot (\text{Table I, Item 10})$ ÷ (Table I, Item 4, last col.)^f (Table I, Item 6) - (Table III, Item 4)^g (3) ÷ 100 × \$1197^h (Table I, Item 6) - (Table III, Item 6)ⁱ (7) × 1000 ÷ (2)

Appendix A

TABLE IV
ILLUSTRATION OF EFFECT OF USING A VARIABLE PERCENTAGE EQUALIZING GRANT TO PROVIDE COMPLETE POWER EQUALIZING
WITH NO ABSOLUTE CEILING ON GRANTABLE EXPENDITURE; WITHOUT POOLING CORPORATION ASSESSMENT

Board/ Item	Rich PSB	Coterminus SSB	Av. Wealth PSB	Coterminus SSB	Poor PSB	Coterminus	Dummy PSB	Provincial Total
1. Tot. Ass. ^a Ass/WP _b LAD/WP _c	\$300,000,000 140,056 1,618	\$90,000,000 28,571 1,340	\$150,000,000 64,212 1,220	\$35,000,000 24,105 1,200	\$28,000,000 28,000 1,250	\$12,000,000 10,000 1,240	\$1,393,176,000 69,659 1,197	\$935,176,000 64,200
Grant Rates								
1st \$1000/WP ^d	17.101%	83,089	61,993	85,732	83,427	94,081	58,769	62.00
Next \$197/WP ^e	(22.665)%	74,977	43,761	78,888	75,477	91,242	38,991	43,772
Next \$100/WP ^f	(58.895)%	73,298	39,989	77,472	73,832	90,654	---	40.00
Next \$100/WP ^g	(41.801)%	71,073	---	---	---	---	---	35.00
Next \$100/WP ^h	(52.709)%	---	---	---	---	---	---	30.00
Next \$100/WP ⁱ	(63.617)%	---	---	---	---	---	---	25.00
Remaining ^j Exp/WP	(74.525)%	---	---	---	---	---	---	20.00
Grant on								
1st \$1000	\$ 171.01	830.89	619.93	857.32	934.27	940.81	587.69	620.00
Next \$197	(49.65)	147.70	86.21	155.41	148.69	179.75	76.81	86.23
Next \$100	(30.89)	73.30	9.20	2.32	39.13	38.98	8.81	8.81
Next \$100	(41.80)	30.56	---	---	---	---	---	22
Next \$100	(52.71)	---	---	---	---	---	---	3.61
Next \$100	(63.62)	---	---	---	---	---	---	(4.36)
On Remainder	(15.65)	---	---	---	---	---	---	(1.07)
Tot. Grant/WP Levy/WP	(78.31) 1,696.31	1,082.45 257.55	715.34 504.66	1,015.05 184.95	1,022.09 227.91	1,159.54 80.46	664.50 532.50	706.22 539.21
Mil'l Rate	12,112	9.014	7.859	7.673	8.140	8.046	7.644	8.399

^a Table I, Item 3

^b (1) \div (Table I, Item 4)

^c Same as Table I, Item 6

^d Rate (%) = 100 - $38 \left(\frac{\text{Ass}/WP}{64,200} \right)$

^e Rate (%) = 100 - $56.228 \left(\frac{\text{Ass}/WP}{64,200} \right)$

^f Rate (%) = 100 - $60 \left(\frac{\text{Ass}/WP}{64,200} \right)$

^g Rate (%) = 100 - $65 \left(\frac{\text{Ass}/WP}{64,200} \right)$

^h Rate (%) = 100 - $70 \left(\frac{\text{Ass}/WP}{64,200} \right)$

ⁱ Rate (%) = 100 - $75 \left(\frac{\text{Ass}/WP}{64,200} \right)$

^j Rate (%) = $100 - 80 \left(\frac{\text{Ass}/WP}{64,200} \right)$

^k "provincial" figures obtained by summing those of boards and dividing by total WADE e.g. $(1.07) = (\$15.65) \times 2142 \div 3128$

NOTE: Figures in parentheses are negative.

Appendix A

TABLE V
EXPENDITURE PER PUPIL IN CURRENT AND CONSTANT (1971) DOLLARS, 1970-76

Year	Current \$ ^a	Elementary			Secondary		
		Constant \$ ^b	% inc./(dec.) (constant \$)	Current \$ ^a	Constant \$ ^b	% inc./(dec.) (constant \$)	
1970	703	723.25	---	1,251	1,287.04	---	
1971	756	756.00	4.53	1,303	1,303.00	1.24	
1972	826	788.17	4.26	1,424	1,358.78	4.28	
1973	877	778.17	(1.27)	1,479	1,312.33	(3.42)	
1974	988	790.40	1.57	1,616	1,292.80	(1.49)	
1975	1,217	878.70	11.17	1,841	1,329.24	2.82	
1976	1,433	962.39	9.52	2,127	1,428.48	7.47	
6-year inc. (dec.)	730	239.14	33.06	876	141.44	10.99	

a Reports of the Minister of Education, 1971-76; 1976 figure obtained from the Ministry

b Deflated by Consumer Price Index (see col. 2 of Table 13 in Text -- p.41)

Appendix A

TABLE VI
GRANT PER PUPIL IN CURRENT AND CONSTANT^a (1971) DOLLARS, 1970-76

Year	Elementary			Secondary		
	Current \$ ^a	Constant \$ ^b	% inc./(dec.) (constant \$)	Current \$ ^a	Constant \$ ^b	% inc./(dec.) (constant \$)
1970	337.13	346.84	---	586.71	603.61	---
1971	411.36	411.36	18.60	718.36	718.36	19.01
1972	468.99	447.51	8.79	800.44	763.78	6.32
1973	521.90	463.09	3.48	859.45	762.60	(.15)
1974	577.96	462.37	(.16)	916.77	733.42	(3.83)
1975	695.37	505.07	8.59	987.90	713.28	(2.75)
1976	786.89	528.47	5.26	1,035.15	695.20	(2.55)
6-year inc. (dec.)	449.76	181.63	52.37	448.44	91.59	15.17

a Calculated from Education Statistics Ontario, 1976, Table 8.00 (grants) and Table 1.30 (ADE) and their predecessors in earlier Ministry Reports⁵

b Deflated by Consumer Price Index

Appendix A

TABLE VII
LOCAL TAXATION PER CAPITA FOR EDUCATION IN CURRENT AND CONSTANT (1971) DOLLARS, 1970-76

Year	Local Taxation for Education ^a	Ontario Population ^b	Local Taxation Per Capita		
			Current \$	Constant \$	% inc./(dec.) (constant \$)
1970	\$ 799,203,000	7,637,000	104.65	107.66	---
1971	785,421,000	7,703,100	101.96	101.96	(5.29)
1972	787,954,000	7,833,900	99.94	95.37	(6.46)
1973	804,505,000	7,938,900	101.84	90.36	(5.25)
1974	903,595,000	8,093,000	111.65	89.32	(1.15)
1975	1,023,006,000	8,255,800	124.37	89.79	.53
1976	1,371,562,000	8,290,100	165.45	111.11	23.74
6-year inc.(dec.)			61.00	3.45	3.20

a Education Statistics Ontario, 1976, Table 8.30 and predecessors (1976 figure obtained from Ministry)

b Ibid., Table 3.05

